

Application S/N 10/649,999
Amendment Dated: November 7, 2005
Response to Office Action dated: July 5, 2005

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A method comprising:

determining that a wireless device operating in a first wireless communication system is detecting a triggering event;

initiating a registration sequence with a second wireless communication system in response to determining that the wireless device is detecting the triggering event;

~~determining at least one of a speed and a displacement of the wireless device;~~

~~and~~

~~conducting at least one of a current call and or a subsequent call via the second wireless communication system in response to determining that at least one of the a speed and or displacement of the wireless device exceeds a first predetermined threshold; and~~

aborting the registration sequence in response to determining that a speed or displacement of the wireless device does not exceed a second predetermined threshold.

2. (currently amended) The method of claim 1, wherein the triggering event is at ~~least one of~~ a detection of a wireless local area network border cell ~~and or~~ a detection of a degradation of signal quality.

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3. (currently amended) The method of claim 2 1, wherein the first wireless communication system is a wireless local area network (WLAN) and the second wireless communication system is a wide area network (WAN).
4. (currently amended) The method of claim 3, wherein the wireless local area network (WLAN) uses a at least one protocol of IEEE Standard 802.11 or and Bluetooth.
5. (currently amended) The method of claim 3, wherein the wide area network (WAN) uses a at least one protocol of code division multiple access (CDMA), time division multiple access (TDMA), global system for mobile communications (GSM) or and integrated digital enhanced network (iDEN).
6. (currently amended) The method of claim 2 1, wherein the first wireless communication system is a wide area network (WAN) and the second wireless communication system is a wireless local area network (WLAN).
7. (currently amended) The method of claim 6, wherein the wireless local area network (WLAN) uses a at least one protocol of IEEE Standard 802.11 or and Bluetooth.

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8. The method of claim 6, wherein the wide area network (WAN) uses a at least one protocol of code division multiple access (CDMA), time division multiple access (TDMA), global system for mobile communications (GSM) or and integrated digital enhanced network (iDEN).

9. (currently amended) The method of claim 2 1, wherein the determining, initiating, conducting and aborting steps are performed in the wireless device, wherein the wireless device is a mobile subscriber unit further comprising:

aborting the registration sequence in response to determining that at least one of the speed and displacement of the wireless device does not exceed a second predetermined threshold.

10. (currently amended) The method of claim 2 1, further comprising: wherein aborting the registration sequence comprises, if the registration sequence is complete, deregistering from the second wireless communication system in response to determining that at least one of the a speed and or displacement of the wireless device does not exceed a third the second predetermined threshold.

11. (currently amended) The method of claim 2 1, wherein the determining at least one of a speed and or a displacement of the wireless device step is performed determined by movement detecting means of the wireless device.

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12. (currently amended) The method of claim 11, wherein the movement detecting means comprises ~~at least one of~~ an accelerometer detecting means and or a global positioning system means.

13. (original) The method of claim 12, wherein the accelerometer detecting means comprises at least three independent axes.

14. (currently amended) A method comprising:

determining that a wireless device operating in a first wireless communication system is detecting a triggering event;

~~measuring at least one of a speed and a displacement of the wireless device;~~

initiating a registration sequence with a second wireless communication system in response to determining that the wireless device is detecting a triggering event and measuring ~~at least one of the~~ a speed and or displacement of the wireless device exceeding a first predetermined threshold; and

conducting current and subsequent calls via the second wireless communication system.

15. (currently amended) The method of claim 14, wherein the triggering event is at ~~least one of~~ a detection of a wireless local area network border cell and or a detection of a degradation of signal quality.

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16. (currently amended) The method of claim ~~15~~ 14, further comprising:

aborting the registration sequence in response to determining that ~~at least one of~~
the a speed and or displacement of the wireless device does not exceed a second
predetermined threshold, wherein the determining, initiating, conducting and aborting
steps are performed in the wireless device, wherein the wireless device is a mobile
subscriber unit.

17. The method of claim ~~15~~ 14, further comprising:

if the registration sequence is completed, deregistering from the second wireless
communication system in response to determining that ~~at least one of the a speed and~~
or displacement of the wireless device does not exceed a second predetermined
threshold.

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18. (currently amended) A mobile communication device comprising:
- at least two transceivers, each transceiver designed to operate on a separate wireless communications system, for transmitting and receiving wireless information;
 - a controller, communicatively coupled to each transceiver, for managing the operation of the mobile communication device;
 - a first wireless communications system stack, communicatively coupled to the controller, having instructions for communicating according to its respective protocol;
 - a second wireless communications system stack, communicatively coupled to the controller, having instructions for communicating according to its respective protocol;
 - a means for measuring speed and or displacement of the wireless device, communicatively coupled to the controller; and
 - a handover manager, communicatively coupled to the controller, the first wireless communications system stack, the second wireless communications system stack, and the means for measuring speed and or displacement of the wireless device, the handover manager for determining when to handover from the first wireless communication system to the second wireless communication system in response to determining that ~~the wireless device is in communication with a wireless local area network border cell and that at least one of the~~ a speed and or displacement of the device exceeds a first predetermined threshold, wherein the handover manager aborts a registration sequence with the second wireless communication system in response to determining that a speed or displacement of the wireless device does not exceed a second predetermined threshold.

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19. (currently amended) The device of claim 18, wherein the means for measuring speed ~~and~~ or displacement of the device comprises ~~at least one of an accelerometer detecting means and~~ or a global positioning system detecting means.

20. (currently amended) The device of claim ~~19~~ 18, wherein the handover manager, if a registration sequence with the second wireless communication system is completed, deregisters the wireless device from the second wireless communication system in response to determining that a speed or displacement of the wireless device does not exceed the second predetermined threshold ~~accelerometer detecting means comprises at least three independent axes.~~

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21. (currently amended) A mobile communication system comprising:

at least one cell of a wireless local area network communications system, the at least one cell providing communication coverage within a structure having at least one egress point;

at least one coverage cell of a second communications system, overlapping the at least one cell of a wireless local area network, for providing communication coverage outside the structure;

at least one border cell of a wireless local area network communications system, the border cell located at the egress point of the structure, providing a transition area from the wireless local area network communications system and the second communications system; and

at least one mobile subscriber device, communicatively coupled with the at least one cell of the wireless local area network communications system, the at least one coverage cell of the second communications system, and the at least one border cell of a wireless local area network communications system, the at least one mobile subscriber device determining when to handover from one wireless communication system to the second wireless communication system in response to determining that ~~the device is in communication with a wireless local area network border cell and that at least one of the~~ a speed and or displacement of the device exceeds a predetermined threshold, wherein the handover manager aborts a registration sequence with the second wireless communication system in response to determining that a speed or displacement of the wireless device does not exceed a second predetermined threshold.

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22. (currently amended) A computer readable medium comprising computer

instructions for performing the steps of:

determining that a wireless device operating in a first wireless communication system is detecting a triggering event;

initiating a registration sequence with a second wireless communication system in response to determining that the wireless device is detecting the triggering event;

~~determining at least one of a speed and or a displacement of the wireless device;~~
and

conducting current and subsequent calls via the second wireless communication system in response to determining that ~~at least one of the~~ a speed and or displacement of the wireless device exceeds a first predetermined threshold; and

aborting the registration sequence in response to determining that a speed or displacement of the wireless device does not exceed a second predetermined threshold.

23. The computer readable medium of claim 22, wherein the triggering event is at ~~least one of~~ a detection of a wireless local area network border cell and or a detection of a degradation of signal quality.

24. (canceled)

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25. (currently amended) The computer readable medium of claim ~~23~~ 22, ~~further comprising: wherein aborting the registration sequence comprises, if the registration sequence is complete,~~ deregistering from the second wireless communication system in response to determining that ~~at least one of the~~ a speed and or displacement of the wireless device does not exceed ~~a third~~ the second predetermined threshold.

26. (currently amended) The computer readable medium of claim ~~23~~ 22, wherein the ~~determining at least one of a speed and or a displacement of the wireless device step is performed~~ determined by movement detecting means of the wireless device.

27. (currently amended) The computer readable medium of claim 26, wherein the movement detecting means comprises ~~at least one of~~ an accelerometer detecting means and or a global positioning system means.

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28. (currently amended) A method to improve battery life of a wireless device, comprising A computer readable medium comprising computer instructions for performing the steps of:

conducting a current call via a first wireless communication system;

determining that a wireless device operating in a first wireless communication system is detecting a triggering event at the wireless device;

measuring at least one of a speed and or a displacement of the wireless device;

initiating, while conducting the current call via the first wireless communication system, a registration sequence with a second wireless communication system in response to determining that the wireless device is detecting a triggering event at and measuring at least one of the speed and displacement of the wireless device exceeding a first predetermined threshold; and

conducting the current call and or a subsequent calls via the second wireless communication system in response to determining that the speed or the displacement of the wireless device exceeds a first predetermined threshold; and

conducting the current call or a subsequent call via the first wireless communication system in response to determining that the speed or the displacement of the wireless device does not exceed the first predetermined threshold.

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29. (currently amended) The method of claim 28, further comprising:
determining again a speed or a displacement of the wireless device; and
deregistering from the second wireless communication system in response to
determining that the again determined speed or displacement of the wireless device
does not exceed a second predetermined threshold ~~The computer-readable medium of~~
~~claim 28, wherein the triggering event is at least one of a detection of a wireless local~~
~~area network border cell and a detection of a degradation of signal quality.~~

30. (new) The method of claim 28, wherein the triggering event is a detection of a
wireless local area network border cell, the border cell providing information to the
wireless device that identifies the cell as a border cell.